Postal Regulatory Commission
Submitted 6/11/2020 3:50:10 PM
Filing ID: 113492
Accepted 6/11/2020

BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268–0001

PERIODIC REPORTING (PROPOSAL THREE)	Docket No. RM2020-10

PETITION OF THE UNITED STATES POSTAL SERVICE FOR THE INITIATION OF A PROCEEDING TO CONSIDER PROPOSED CHANGES IN ANALYTICAL PRINCIPLES (PROPOSAL THREE)

(June 11, 2020)

Pursuant to 39 C.F.R. § 3050.11, the Postal Service requests that the Commission initiate a rulemaking proceeding to consider a proposal to change analytical principles relating to the Postal Service's periodic reports. The proposal, relating to a change in the In-Office Cost System (IOCS) methodology for sampling city carriers, is labeled Proposal Three and is discussed in detail in the attached text.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Nabeel R. Cheema
Chief Counsel, Pricing & Product Support

Eric P. Koetting

475 L'Enfant Plaza, S.W.
Washington, D.C. 20260-1137
(202) 277-6333
eric.p.koetting@usps.gov
June 11, 2020

PROPOSAL THREE

Proposal to Change the In-Office Cost System Sampling Methodology for City Carriers

I. Objective

The Postal Service proposes a change in the In-Office Cost System (IOCS) methodology for sampling city carriers. Census data from the Time and Attendance Collection System (TACS) that are now available enable a new cluster sampling approach that allows data collectors to take on-site readings in the morning while carriers are on the premises and handling mail. The new design improves data quality by obtaining far more data from on-site rather than telephone readings, while simultaneously improving data collection efficiency.

II. Background

The current IOCS sampling design uses multi-stage probability sample to randomly select craft employees, including city carriers, then an interval of work time from the employee's tour, ultimately resulting in an observation that represents a "snapshot" of the work activities in a sampled interval. It is costly to have data collectors travel to do just one IOCS reading out at a distant delivery unit, so most carrier readings are conducted by telephone. In FY 2019, there were over 250,000 individual readings scheduled on city carriers, and over 85 percent of those were phone readings.

The availability of detailed clock ring data from the Time and Attendance Collection System (TACS) affords the opportunity to reshape the sampling design significantly in order to improve sampling efficiency and data quality. In Docket No. RM2019-6, the Commission recently approved Proposal One, which allows the modeling of all Special Purpose Route (SPR) carrier costs through the use of TACS

data and econometric equations.[1] The current proposal extends the use of TACS data to weight sampling data by finance number and to provide cost controls for city carriers by time of day (morning and afternoon). Other TACS controls, such as day of the week group (Sunday/Holiday versus weekday/Saturday), have already been adopted with the approval of portions of Proposal Two in Docket No. RM2018-5.[2] The current proposal would enable the replacement of telephone readings in the current system with onsite data collectors conducting readings within individual finance numbers using a cluster sampling design.

The proposed redesign of IOCS is similar in some respects to the earlier Proposal Two in Docket No. RM2018-5 that was partially approved. In order to address concerns raised in Order No. 4972, the new proposal differs from the previous proposal in key ways with regard to CAG and the inclusion of all carriers, not only those assigned to specific delivery zones. For example, CAG is now used to define separate sampling strata for onsite morning tests, as well as used for post-stratification of afternoon telephone tests. Also, testing is now expanded to be completed by finance number rather than delivery zone, ensuring that all employees working during a given period of time are eligible for testing.

The primary benefit of this proposal would be a dedicated data collector on-site to conduct readings for the vast majority of the time that carriers are on the premises handling mail.[3] This enables the scanning of barcodes, which can help improve and

---

[1] Order No. 5405 (January 14, 2020). The methodology approved in Proposal One replaces all previous TACS modeling in IOCS.
[2] Order No. 4972 (January 8, 2019).
[3] Traditionally, IOCS has referred to the time while carriers are on the premises, including loading the vehicle while in the parking area, as “in-office”. However, because

validate data quality. On-site data collectors have a primary duty to record data, without the distractions that may impinge on telephone respondents' time.

III. Proposal

The Postal Service proposes to change the IOCS system design for city carriers to a cluster sampling approach that utilizes census data from TACS to enable on-site data collection in the locations and times where and when city carriers are working on the premises. Rather than sample individual employees, it samples blocks of time, and then subsamples clusters of carriers who are working during those blocks of time. In morning tests, individual finance numbers (within CAG strata) are sampled, enabling on-site data collection of the associated carriers. In the afternoon, one-hour blocks of time for districts are sampled using telephone tests.

The key elements of Proposal Three are that, if approved, the Postal Service would:

- In the morning period (prior to 1100) when carriers are typically working on the premises of post offices or other carrier facilities, use clustered on-site readings in sampled finance numbers as described in Sampling Mode 1 below.
- In the afternoon period (after 1100) when carriers are typically working on the street, use clustered telephone readings with one-hour intervals as described in Sampling Mode 2 below.

Delivery Operations generally uses "in-office" to refer to the time before loading the vehicle, this proposal generally uses "on-premises" to improve clarity.

- Use TACS data to provide control totals for the portion of supervisor costs incurred on weekdays (Monday – Saturday) by employees whose base craft is carrier, but who have clocked as a supervisor craft, as approved in Order No. 5395.[4] The costs would be allocated using the distribution key from sampled carriers acting as supervisors within the different sampling modes.
- Conduct no carrier readings on Sundays and Holidays, but rather continue to use TACS data to provide control totals for carrier costs on Sundays and Holidays as described in Docket RM2018-5.[5]

A full description of the sampling modes is provided in Appendix A, which is included as a pdf document in the zip file submitted as part of USPS-RM2020-10-1. A brief description is provided here.

IV. Sampling Modes

A. Sampling Mode 1: Morning On-site Tests

Mode 1 is the primary sampling mode of the proposed IOCS-Cluster system, used for on-site sampling of finance numbers with carrier hours during the morning period (defined as before 1100). Data collectors conduct on-site readings on the cluster of carriers clocked to the selected finance number on the selected day. The data collectors identify all carriers working in the selected finance number, and use the data

[4] Order No. 5395 (January 6, 2020) approved the methodology submitted as Proposal Seven in Docket No. RM2019-12, which uses TACS by CAG to allocate costs for carriers acting as supervisors on Sundays and holidays. In the current proposal, the Postal Service proposes expanding this methodology to all days of the week.
[5] The use of this methodology for allocating Sunday costs was approved in Order No. 4972 (January 8, 2019).

collection software to randomly subsample up to six carriers from the list of eligible employees.[6] Data collectors conduct readings every five or ten minutes, depending on the CAG of the finance number, therefore typically conducting a reading on each of the six selected carriers every 30 minutes.[7] These include readings conducted while the carrier is in the parking lot or on the loading dock. Readings begin when carriers start their workday and are continued until 1100.[8]

B. Sampling Mode 2: Afternoon Telephone Tests

This sampling mode is used to collect data between 1100 and 1900, after the on-site tests are completed. Carriers are on the street over 95 percent of this time, so there are too few carriers in the office to justify sending data collectors to conduct on-site tests. IOCS-Cluster telephone tests are scheduled for one-hour blocks of time. The data collection software randomly selects 30 carriers from the IOCS panel offices across a district, and then groups these 30 carriers by finance numbers. There are two groups of phone reading tests -- larger CAGs and smaller CAGs.[9] This allows for oversampling of the smaller CAGs.

---

[6] If a finance number has fewer than six employees working on the day of the test, all carriers are sampled in a random order. Selecting six employees for sampling balances the desire to sample as many different carriers as possible against the practical need for data collectors to identify the sampled employee while they are still in the building and before they leave for the parking area, where it is more difficult to identify an unknown employee.

[7] CAG A, B and C finance numbers are typically housed in larger buildings where conducting a reading every 5 minutes is not possible.

[8] If all carriers have left for the street and the supervisor confirms that none will return before 1100, the data collector may pre-record street readings for all carriers up to 1100 and end the test early.

[9] For the larger group, CAGs A, B and C are pooled together, and for the smaller group, CAGs D, E, F, G, H, J, K and L are pooled together.

V. Sampling Methodology

The sampling methodology utilizes probability proportional to size (PPS) sampling, based on the accrued TACS workhours for carriers from two pay periods out of the prior quarter. The underlying TACS workhours are grouped by CAG, finance number, district and time of day depending on the sampling mode. Samples are drawn on a quarterly basis.

For Sampling Mode 1: morning on-site tests, only the TACS workhours for carriers accrued in the morning period (prior to 1100) are utilized to calculate the sampling weight. Mode 1 is sampled at the finance number level by CAG. Each finance number has its own sampling weight based on the accrued TACS hours for that specific finance number. Finance numbers are grouped by CAG, and each CAG group has a specific number of samples drawn. This allows for oversampling of smaller CAGs that do not accrue a significant amount of carrier costs relative to large CAGs such as A, B, and C.

The proposed sample size by CAG level is shown in Table 1 below.

Table 1: Sampling Mode 1 Quarterly Sample Size by CAG Group

CAG Group	Quarterly Sample Size
A – B	375
C	275
D	125
E	125
F	80
G	25
H – L	15
Total	1,020

For Sampling Mode 2: afternoon phone tests clustered by hour, only the TACS workhours for carriers accrued in the afternoon period (after 1100) are utilized to craft the sampling made. Mode 2 is sampled at the district level by CAG grouping. Each district has its own sampling weight based on the accrued TACS hours for entire district within the CAG group. As noted, the two groups are CAGs A-C and CAGs D-L. For each of the CAG groups, each district has its own sampling weight that determines the number of samples a given district is assigned. The proposed sample size by CAG group level is shown in Table 2 below.

Table 2: Sampling Mode 2 Quarterly Sample Size by CAG Group

CAG group	Quarterly Sample Size
A – C	150
D – L	150
Total	300

VI. Sample Sizes

Table 3 displays the proposed number of tests by each sampling mode and the projected number of non-stop readings that are expected from each mode.[10]

[10] A reading is “non-stop” when the carrier is actively working in the tested finance number. These include on-street as well as on-premises readings. A reading is a stop reading if the employee is not clocked in at the time of the reading.

Table 3: Annual Testing Rate and Non-Stop Readings by CAG Group and Sampling Mode

Sampling Mode	Proposed number of tests per year	Projected Number of non-stop readings per test	Projected number of non-stop readings per year
AM On-site, CAGs A&B	1,500	18	27,000
AM On-site, CAGs C-L	2,580	36	92,880
PM Telephone, CAGs A-C	600	10	6,000
PM Telephone, CAGs D-L	600	10	6,000
Total	5,280		131,880

VII. Estimation of Costs for Carriers

The Postal Service proposes to estimate costs using TACS data to weight the IOCS-Cluster sample readings. Quarterly accrued TACS hours by finance number are used to scale morning tests for each tested finance number. Pursuant to Order No. 4399, separate cost controls are developed for letter routes and Special Purpose Routes (SPR) using TACS hours by Labor Distribution Code (LDC), together with accrued labor costs, by craft group (full-time, part-time/transitional) and CAG.

For afternoon tests, quarterly hours are aggregated by district and CAG group to scale each test accordingly. Costs controls for afternoon tests are created using the same methodology as the morning tests.

Equations for the estimations are provided in Appendix A included in USPS-RM2020-10-1.

VIII. Carriers Clocking as Supervisors

For the carriers who are acting as a supervisor, the Postal Service proposes using the same methodology approved by the Commission in Order No. 5395 to create a weekday cost control total. Separate cost controls will be established for the large CAG Group (CAGs A-C) and small CAG Group (D-L) for both the morning and afternoon. This cost control will be allocated proportionally to the readings within each established bucket.

IX. Special Purpose Route (SPR) Costs

With the approval of Proposal One in Docket No. RM2019-6, IOCS tallies are no longer used to distribute costs with regard to SPR activities. The current Proposal Three continues to sample SPR carriers, but does not use the readings to attribute any costs. In the future, the Postal Service may exclude SPR carriers from the sampling pool to further increase the sampling efficiency of IOCS-Cluster, if a reliable method to do so can be identified.

X. IOCS Information Collected

The change in sampling methodology does not change the activity or mail-related questions answered by the data collectors at the time of the readings. All information and characteristics recorded in the current IOCS will continue to be asked and answered in the proposed system. Only administrative fields and back-end weighting variables will be affected by the proposed sampling methodology.

XI. Rationale

There are numerous reasons why the Postal Service views the cost estimates from the proposed new IOCS-Cluster sampling systems as more accurate than the corresponding cost estimates for carriers derived from the current IOCS sampling system.

A. Dedicated Statistical Program Data Collectors On-Site

The primary objective of the proposal is to replace telephone readings with on-site readings, particularly while carriers are on the premises and handling mail. On-site data collectors can scan barcodes, which can provide valuable information both at the time of the readings, by pre-populating responses to certain IOCS questions, and with back-end processing and validation of data recorded for the tallies. An additional benefit is that data collectors are trained and may do a better job of implementing IOCS data collection procedures and recognizing mail markings or other product-identifying characteristics that are less common or more obscure. Furthermore, a data collector's primary objective is to complete tests for statistical programs, whereas supervisors or back office clerks (i.e., the typical phone respondents) have numerous other responsibilities in the morning period while carriers are in the office, especially at times when carriers are leaving for the street. On-site data collectors have additional time to find carriers who are not at their case and cannot be located immediately.

B. Increased Mailpiece Sampling

Data collectors have enough time to obtain, sample and return a mailpiece to a carrier, whereas a respondent may not be able to do so, given competing work responsibilities. Telephone respondents do not always have enough time to adequately sample a mailpiece that a carrier is handling, since the respondent must locate the

carrier, obtain a mailpiece, convey responses to the data collector by phone, and return the piece to the carrier. The IOCS software and sampling procedures allow respondents to avoid sampling a specific mailpiece if they are unable to obtain a piece or if they perceive that doing so will delay the carrier. While these readings are not necessarily inaccurate, they provide less information than a direct mailpiece reading. Having a dedicated data collector on-site allows them to take the time to retrieve a mailpiece from a carrier with less disruption and delay of both the carriers and respondents (i.e., clerks or supervisors).

Table 4: FY 2020, Quarter 2 Year-to-Date Letter Carrier Tally Costs by Reading Location

Reading Location/Type	Non-Cluster	Cluster	% Change
Office	**$1,461,073**	**$1,651,990**	**13%**
Direct	$ 753,143	$1,083,557	44%
Mixed	$ 220,111	$ 166,901	-24%
Street	$ -	$ -	0%
Support	$ 487,819	$ 401,532	-18%
Parking Lot	**$ 377,542**	**$ 347,263**	**-8%**
Direct	$ 21,986	$ 71,095	223%
Mixed	$ 146,335	$ 133,431	-9%
Street	$ -	$ -	0%
Support	$ 209,222	$ 142,737	-32%
Street	**$6,247,254**	**$6,086,616**	**-3%**
Direct	$ -	$ -	0%
Mixed	$ -	$ -	0%
Street	$6,227,339	$6,068,976	-3%
Support	$ 19,915	$ 17,640	-11%
Total	**$8,085,869**	**$8,085,869**	**0%**

Table 4 demonstrates the increase in costs allocated based on direct mailpiece tallies from both office and parking lot readings. When the carriers were in the office, direct mailpiece costs increased 44 percent, and when the carries were in the parking lot, direct mailpiece costs increased 223 percent. Furthermore, there are corresponding decreases in ambiguous mixed mail costs. In the office, there was a 24 percent

decrease in mixed mail costs, and in the parking lot, there was a 9 percent decrease in mixed mail costs.

C. Reduction in Ambiguous Route Costs

Data collectors do a better job of identifying which routes a carrier is working on at the time of the reading. IOCS categorizes work that is not associated with a route, unidentified routes, or routes with no information in the Address Management System (AMS) as route type 99. With the new system, there are no costs allocated to unidentified routes. The only costs that remain in route 99 are training costs that are not associated with a route.

Table 5: FY 2020, Quarter 2 Year-to-Date Route 99 Cost Distribution

Activity Category	Non-Cluster	Cluster	% Change
Mailpiece	$ 6,980	$ -	-100%
Mixed Mail	$ 6,663	$ -	-100%
Support	$ 53,568	$ -	-100%
Training	$ 24,620	$ 24,271	-1%
Total	$ 91,832	$ 24,271	-74%

Table 5 displays a 74 percent reduction in route type 99 costs, while training costs remained flat. In Non-Cluster IOCS, there are numerous tallies in which carriers are handling mail, but are either not assigned to a specific route or not working on a valid route in the Address Management System. These costs are assigned to the ambiguous route 99. Operationally, however, it is unlikely that a carrier is working with mail while not assigned to a specific route. IOCS-Cluster results in no tallies where a carrier is not assigned to a specific route, but nonetheless is still handling mail.

At the same time, the larger route categories (Business, Residential, and Mixed) appear stable between the two systems.

Table 6: FY 2020, Quarter 2 Year-to-Date Letter Carrier Route Type Costs

Route Type	Non-Cluster	IOCS-Cluster	Diff	Percent
Business	$ 82,501	$ 74,511	$ (7,990)	-10%
Residential	$ 7,386,017	$ 7,432,053	$ 46,036	1%
Mixed	$ 525,520	$ 555,034	$ 29,514	6%
Misc (Route 99)	$ 91,832	$ 24,271	$ (67,560)	-74%
Total	$8,085,869	$8,085,869	$0	0%

Table 6 displays the shifts within different route types between the systems. As discussed earlier, the largest shift is between Route 99 costs. The other categories vary slightly, depending on the size of the category.

D. Use of Time and Attendance System (TACS) Data

Throughout the last few years, the Commission has supported the use of TACS data. This redesign in sampling methodology continues to utilize the valuable information provided by TACS. By using TACS to weight tests by finance number or district, the Postal Service no longer needs to absorb the inefficiency of simple random sampling. Simple random sampling forces the sampling to be spread out and random, which limits the Postal Service's ability to have a data collector on site, with the potential of a sampled employee not even being scheduled to work that day or being on leave. Using TACS will allow focused sampling at all CAGs, and weight the results according to their accrued hours and costs.

XII. Impact

As shown in Table 7 below, IOCS-Cluster results in a 49 percent increase in costs allocated based on direct tallies, where the carrier was handling a mailpiece and that mailpiece was able to be sampled. Costs decreased for mixed mail, training,

support and administrative activities, which are all readings without an actual mailpiece recorded.

Table 7: FY 2020, Quarter 2 Year-to-Date Letter Carrier Tally Costs

Mail Category	Non-Cluster	Cluster	% Change
Direct	$ 775,129	$1,154,652	49%
Mixed	$ 366,445	$ 300,332	-18%
Street	$6,227,339	$6,068,976	-3%
Support	$ 716,956	$ 561,909	-22%
Total	$8,085,869	$8,085,869	0%

The final impacts at the CRA product level are displayed in Table 8. The largest material changes were seen in competitive products and First-Class Mail Single-Piece letters. Competitive product costs increased overall. First-Class Mail Single-Piece Letter costs decreased, which accounted for most of the decrease in Total First-Class Mail Costs. Marketing Mail Flats and Parcels costs also decreased. Other products, in contrast, experienced increases in costs. BPM products, Media Mail, the other Marketing Mail products, Periodicals, Extra Services and International Mail all saw increases in product costs. A non-public version of Table 8, which displays Competitive Product detail, is filed under seal in USPS-RM2020-10-NP1.

Table 8: CRA Public Impact

LINE NO.	CLASS, SUBCLASS, OR SPECIAL SERVICE	CRA Class	TOTAL OFFICE AND STREET, CURRENT	TOTAL OFFICE AND STREET, PROPOSED	TOTAL OFFICE AND STREET, CURRENT WITH PIGGYBACKS	TOTAL OFFICE AND STREET, PROPOSED WITH PIGGYBACKS	PROPOSED MINUS CURRENT	CHANGE IN UNIT COST
	COLUMN NUMBER		(10)	(10)				
	UNITS		$(000)	$(000)				
	COLUMN SOURCE/NOTES							
	MODEL COMPONENT							
	MARKET DOMINANT							
1	**First-Class Mail**							
2	Single-Piece Letters	3	584,571	492,817	797,471	672,300	(125,171)	$ (0.015)
3	Single-Piece Cards	4	24,639	20,458	33,468	27,789	(5,679)	$ (0.022)
4	Presort Letters	8	559,279	524,535	761,130	713,845	(47,284)	$ (0.003)
5	Presort Cards	9	17,838	21,341	24,581	29,408	4,827	$ 0.004
	Flats		106,963	105,154	142,624	140,212	(2,412)	$ (0.004)
8	**Total First-Class Mail**	80	1,293,290	1,164,304	1,759,273	1,583,554	(175,720)	$ (0.006)
9	**USPS Marketing Mail**							
10	High Density and Saturation Letters	21	109,508	114,973	151,497	159,058	7,561	$ 0.002
11	High Density and Saturation Flats/Parcels	22	282,002	303,291	389,795	419,223	29,427	$ 0.005
12	Every Door Direct Mail-Retail	24	12,274	13,394	16,941	18,487	1,545	$ 0.005
13	Carrier Route	23	278,944	319,905	375,378	430,500	55,122	$ 0.017
14	Letters	25	680,839	707,041	929,881	965,668	35,787	$ 0.002
15	Flats	26	259,871	230,751	344,928	306,277	(38,651)	$ (0.021)
16	Parcels	27	6,174	2,849	8,277	3,820	(4,457)	$ (0.215)
17	**Total USPS Marketing Mail**	81	1,629,613	1,692,205	2,216,698	2,303,031	86,333	$ 0.002
18	**Periodicals**							
19	In County	31	13,891	18,935	18,905	25,769	6,864	$ 0.028
20	Outside County	32	150,516	190,453	201,834	255,386	53,553	$ 0.028
21	**Total Periodicals**	82	164,407	209,388	220,739	281,156	60,417	$ 0.028
22	**Package Services**							
23	Bound Printed Matter Flats	42	13,687	18,988	18,318	25,414	7,096	$ 0.058
24	Bound Printed Matter Parcels	43	32,739	42,159	45,006	57,956	12,950	$ 0.100
25	Media/Library Mail	44	11,916	14,221	16,360	19,525	3,165	$ 0.074
26	**Total Package Services**	83	58,341	75,368	79,684	102,895	23,210	$ 0.079
27	**US Postal Service**	85	18,471	22,653	24,644	30,223	5,579	$ 0.037
28	**Free Mail**	86	2,979	3,151	4,017	4,248	231	$ 0.015
29	**Total Domestic Market Dominant Mail**	90	3,167,102	3,167,070	4,305,056	4,305,107	51	
30	**Ancillary Services**							
31	Certified Mail	51	54,143	62,076	74,894	85,867	10,973	$ 0.115
32	COD	52	150	175	204	238	34	$ 0.206
33	Insurance	54	199	323	278	452	174	$ 0.021
34	Registered Mail	55	349	360	482	497	15	$ 0.026
35	Stamped Envelopes	56	-	-				
36	Stamped Cards	57	-	-				
37	Other Domestic Ancillary Services	58	38,026	34,781	52,944	48,426	(4,518)	
38	**Special Services**		-	-				
39	Money Orders	73	-	-				
40	Post Office Box Service	74	-	-				
41	**Total Domestic Market Dominant Services**	91	92,868	97,715	128,803	135,480	6,678	
42	**Total Domestic Market Dominant Mail and Ser**	92	3,259,970	3,264,785	4,433,858	4,440,587	6,729	
43	**Domestic Competitive Products**							
51	**Total Domestic Competitive Mail and Services**	192	838,323	999,683	1,153,463	1,375,482	222,018	$ 0.076
52	**Total International Mail And Services**	185	57,434	66,509	78,632	91,056	12,425	
53	**Total Vol Var & Prod Spec**	198	4,155,726	4,330,977	5,665,953	5,907,125	241,172	
54	**Other**	199	4,455,276	4,280,025				
55	**Grand Total**	200	8,611,002	8,611,002				

XIII. Coefficient of Variation (CV)

Table 9 displays the results for CVs by CRA Subproduct when Fiscal Year 2020 Quarter 2 Year-to-Date data were used to project annual CVs for IOCS-Cluster. Overall, the majority of direct CRA products would have been projected to incur lower CVs than those associated with Non-Cluster IOCS during FY19. The CV for Street time experienced the largest increase in CV, due to the decrease in afternoon sampling. However, because the cost estimate is so large for this category, the variation is well below half a percentage point for the annual estimate. The efficiency gains outweigh the slight increase in CV. First-Class Mail also experienced a very slight increase in CV due to the drop in allocated costs. Compared to the previous filing of IOCS-Cluster in Docket No. RM2018-5, the CVs have improved, due mostly to the approval of modeling SPR costs.

Table 9: Coefficient of Variation (CV)

FY20 Carrier Mixed Mail (CARMM) estimated mean distributed costs and CVs
Cost Segment 6.1 Mail Processing - City Carriers Direct Labor Inputs
(Cost estimates and means are in thousands of dollars)

	IOCS- Cluster			IOCS Non-Cluster			
Subclass	Cost Est.	FY20 Half Year CV **	FY20 Full Year CV (Inference)	FY19 Cost	FY19 Std Dev	FY19 CV	Diff
Market Dominant Products							
FIRST-CLASS MAIL							
SINGLE-PIECE LETTERS	102,891	4.02%	2.84%	313,148	8,966	2.86%	-1%
SINGLE-PIECE CARDS	6,577	14.60%	10.33%	15,509	1,545	9.96%	4%
PRESORT LETTERS	155,070	4.27%	3.02%	312,452	9,901	3.17%	-5%
PRESORT CARDS	10,218	12.64%	8.93%	7,727	1,149	14.88%	-40%
SINGLE-PIECE FLATS	35,861	7.35%	5.20%	61,702	3,565	5.78%	-10%
PRESORT FLATS	26,143	7.06%	5.00%	43,399	2,834	6.53%	-24%
TOTAL FLATS	62,004	5.15%	3.64%	105,101	4,605	4.38%	-17%
TOTAL FIRST-CLASS MAIL - MARKET DOMINANT	336,760	2.83%	2.00%	753,937	14,800	1.96%	2%
USPS MARKETING MAIL							
HIGH DENSITY & SATURATION LETTERS	22,752	8.28%	5.85%	25,689	2,323	9.04%	-35%
HIGH DENSITY & SATURATION FLATS & PARCELS	67,051	5.66%	4.00%	73,085	4,003	5.48%	-27%
EVERY DOOR DIRECT MAIL - RETAIL	569	38.90%	27.50%	1,204	441	36.66%	-25%
CARRIER ROUTE	157,567	3.62%	2.56%	238,194	7,817	3.28%	-22%
LETTERS	222,934	3.16%	2.24%	356,244	10,368	2.91%	-23%
FLATS	136,856	3.39%	2.39%	284,649	7,964	2.80%	-14%
NOT FLAT-MACHINABLES & PARCELS	1,019	42.44%	30.01%	4,914	1,091	22.20%	35%
TOTAL USPS MARKETING MAIL	608,749	1.93%	1.36%	983,979	17,538	1.78%	-23%
PERIODICALS							
IN COUNTY	9,116	12.48%	8.83%	8,447	1,254	14.85%	-41%
OUTSIDE COUNTY	108,721	3.34%	2.37%	160,235	5,667	3.54%	-33%
TOTAL PERIODICALS	117,837	3.23%	2.29%	168,682	5,771	3.42%	-33%
PACKAGE SERVICES							
BOUND PRINTED MATTER FLATS	11,845	11.47%	8.11%	12,626	1,423	11.27%	-28%
BOUND PRINTED MATTER PARCELS	15,365	10.91%	7.71%	10,461	1,811	17.32%	-55%
MEDIA AND LIBRARY MAIL	5,424	14.41%	10.19%	3,745	954	25.48%	-60%
TOTAL PACKAGE SERVICE - MARKET DOMINANT	32,635	7.53%	5.32%	26,832	2,478	9.24%	-42%
US POSTAL SERVICE	12,529	13.83%	9.78%	17,944	1,980	11.03%	-11%
FREE MAIL	1,174	32.14%	22.73%	1,438	535	37.19%	-39%
Ancillary Services							
CERTIFIED	13,017	8.06%	5.70%	13,260	1,476	11.13%	-49%
COD	25	74.44%	52.64%	121	122	100.81%	-48%
INSURANCE	113	65.68%	46.44%	0	0	N/A	0%
REGISTRY	116	71.43%	50.51%	56	53	94.77%	-47%
STAMPED ENVELOPES	0	N/A	N/A	0	0	N/A	0%
STAMPED CARDS	0	N/A	N/A	0	0	N/A	0%
OTHER ANCILLARY SERVICES	498	41.34%	29.23%	3,118	608	19.49%	50%
Special Services							
MONEY ORDERS	0	N/A	N/A	0	0	N/A	0%
POST OFFICE BOX	0	N/A	N/A	0	0	N/A	0%
OTHER SPECIAL SERVICES	0	N/A	N/A	0	0	N/A	0%
COMPETITIVE MAIL AND SERVICE	310,821	2.58%	1.83%	300,767	8,814	2.93%	-38%
INTERNATIONAL MAIL	17,714	9.73%	6.88%	28,562	2,807	9.83%	-30%
GRAND TOTAL	1,451,988	1.11%	0.79%	2,298,696	30,396	1.32%	-41%
Street Time - 6710	6,068,976	0.53%	0.38%	12,783,927	37,293	0.29%	29%

* 200 Iterations
** Uses the formula (Std Deviation / Cost Estimate)